# History of Medicine Survey 2: Medicine from the Black Death to the Scientific Revolution

Welcome to the History of Medicine Survey 2. In this course we will explore health and healing from the Middle Ages into the Early Modern period. Sufferers and healers worked with models of the body and therapeutics very different to those of our own day. But healers had to persuade patients of their skills, sufferers had to choose amongst a range of health-



care options, and each sought meaning in experiences of illness in ways that may not be so alien to our experience. We examine the translation movement of the High Middle Ages, the advent of medical regulation, and impact of the the Black Death, before moving to topics in early modern medicine such as Renaissance anatomy, the impact of the voyages of explorations, and the shape of the early modern medical marketplace. The course focuses upon the organization of health-care, the circulation of medical knowledge, and the experiences of patients, and seeks to relate forms of healing to their social and cultural contexts.

Survey 1 is not a pre-requisite to this course, but if you have not taken it, we would recommend that you watch the lectures "Why Study Pre-Modern Medicine?"; "Galenic Physiology"; and "The Long Life of Humoral Medicine" for background.

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## **Learning Objectives**

Upon successfully completing this course, students will be able to:

- · Analyze medieval and early modern medical practices in historical context
- Compare and contrast the medical translation movements of the Islamic world and the medieval West
- Explain the causes and consequences of the Black Death
- Analyze the impact of the advent of medical regulation
- Describe changes that made early modern medicine different from that of the Middle Ages
- Utilize the concept of the medical marketplace to analyze early modern medicine
- Interpret a variety of types of primary sources

## Course structure:

Every week you will watch a few short lectures that provide a narrative overview of themes in medieval and early modern medicine; these lectures provide essential context for understanding the assigned readings. The readings form the basis for the discussions via Voice Thread and Live Talk conversations. There are also short skills

lectures that introduce specific historical practices; if you have taken IHOM you will have seen these already, and can re-view them.

Prof. Fissell will be holding "virtual office hours" (live video) every week via Adobe Connect, the same technology you'll use for the Live Talks. Office hours are completely optional! You can stop by with a question (there are no stupid questions, just un-asked ones), or ask me to explain something in greater detail that you didn't quite get, or just chat about course material. If I feel we are having a chat that really should be on Voice Thread for all to see, I'll say so and we can move over to that modality. Adobe Connect has the potential to have video chats with multiple people at the same time, so if you need to talk with me about a private issue, please let me know and we can make other arrangements. I will vary the times of the office hours to make them more accessible.

Assessment: Your progress in the course will be assessed in four ways.

- Mini-quizzes. Every week there will be a quick online mini-quiz (3-4 questions)
  covering the previous week's material. The quiz is designed to help you see if you are
  understanding the material in sufficient depth; you will not be graded on correct or
  incorrect answers. Just taking the quiz is all that's required. You can check your
  progress by reading the explanations of the correct/incorrect answers. 20%
- 2. Online participation. Each week there will be either a Voice Thread or a Live Talk discussion. Successful completion of the course requires that you participate on-line; if the scheduling of the Live Talks does not work for you, you can do an optional writing assignment based upon the Live Talk discussion. 30%
- 3. Brief writing responses. Every week you will be asked to write a brief response to some aspect of the readings -- formats will vary, but the length is usually 1-2 pages, double-spaced. You will need to complete the writing responses to participate in the discussions. 25%
- 4. Short paper. You will write one short (5-6 page) paper analyzing a primary source. 25%.

Overview texts (purchase used or new in paperback from Amazon or other):

Nancy G. Siraisi, *Medieval and Early Renaissance Medicine: An Introduction to Knowledge and Practice* (Chicago: University of Chicago Press, 1990).

Mary Lindemann, *Medicine and Society in Early Modern Europe*, 2<sup>nd</sup> ed. (Cambridge: Cambridge University Press, 2010). Be sure to get the **2nd** ed.

The remainder of the readings can be accessed through e-Reserves; see the link on Course Plus.

# Week 1, Oct. 26: Early Medieval Medicine

This week we explore medicine in the so-called Dark Ages. How did monasteries preserve medical knowledge, and how did they make new knowledge? How did medicine in Baghdad incorporate classical learning with new advances in clinical medicine? If you did not take Survey 1, you may wish to view the lecture Monastic Learning for background.

Please join our "Get to Know You" Voice Thread before we do the Live Talk. Introduce yourself and try out this technology — please do try out the video comments feature to introduce yourself!

Lecture: Medicine in Baghdad Lecture: Avicenna and Rhazes

Lecture: The Translation Movement in Europe

Live Talk: Thursday Oct. 29:

Faith Wallis, "Signs and Senses: Diagnosis and Prognosis in Early Medieval Pulse and Urine Texts." *Social History of Medicine* 13 (2000): 265–78.

Max Meyerhof, "Thirty-three Clinical Observations by Rhazes (ca. 900 AD)", *Isis* 23 (1935), 321-56.

"The Second Salernitan Demonstration" transl. Faith Wallis, in Wallis, ed., *Medieval Medicine*. *A Reader* (Toronto: University of Toronto Press, 2010): 159-174.

Jean of Tournemire treats breast cancer, *Acta Sanctorum* Julii Tomus Primus, (Paris: Victor Palme, 1867) translated by Faith Wallis in Wallis, ed., *Medieval Medicine*. *A Reader*. (Toronto: University of Toronto Press, 2010): 344-348.

Siraisi, Medieval and Early Renaissance Medicine, 1-16.

If you have not seen the Toolbox video "Reading a Primary Source" you might want to watch it as preparation for reading this week's primary sources (Rhazes; Salernitan demonstration; and Jean of Tournemire).

#### Response:

In 1-2 pages, double-spaced, analyze the Jean of Tournemire reading. How do Jean's roles as father and doctor shape the story he tells? What kind of document is this, and how does that shape the story he tells?

## **Learning Objectives:**

- Analyze continuity and change in Islamic medical practices.
- Compare and contrast knowledge transmission practices in East and West.
- Describe teaching practices in Salerno.

Utilize a hagiography to explore the social and cultural history of healing.

# Week 2, Oct. 31: Medieval Medicine: Physicians and Surgeons

The new institution of the university changed the ways that physicians and surgeons were trained and how they understood themselves as healers. This week we explore what it meant to be a physician or a surgeon in this period of change.

Lecture: Universities and Physicians

Lecture: Guilds and Surgeons

# Voice Thread:

Cornelius O'Boyle, "Surgical Texts and Social Contexts of Physicians and Surgeons in Paris, c. 1270 to 1430," in Luis Garcia-Ballester, et al. (eds.), *Practical Medicine from Salerno to the Black Death* (Cambridge: Cambridge University Press, 1994): 156-185.

Michael R. McVaugh, "Bedside Manners in the Middle Ages", *Bulletin of the History of Medicine* 71 (1997): 201-223.

Faye Getz, *Medicine in the English Middle Ages*, Princeton: Princeton University Press, 1998): xi-xii; 3-7.

Arnald of Villanova, "On the Precautions that Physicians Must Observe" [trans. by Henry Sigerist]; in *A Source Book in Medieval Science*, ed. Edward Grant, (Cambridge, Mass.: Harvard University Press, 1974): 751-52.

Siraisi, Medieval and Early Renaissance Medicine, 17-77; 153-186.

<u>Response:</u> go to the Loren McKinney collection of medieval medical images: <a href="http://www2.lib.unc.edu/dc/mackinney/mackinney.html">http://www2.lib.unc.edu/dc/mackinney/mackinney.html</a> Select one that depicts surgery, and post it to the course wiki. Once there are a dozen or so posted, write a response about what these images might convey about the identity of the medieval surgeon.

#### <u>Learning Objectives:</u>

- Describe the impacts of new university training on medical occupations.
- Describe the development of surgery in the Middle Ages.
- Explain how deontological precepts can be used to interpret patient/ practitioner relations.
- Develop interpretive skills for medieval medical images.

#### Week 3, Nov. 7: Medieval Medicine: Practices

This week we look at healing practices outside of those of the university-trained physicians and surgeons, asking about the wider medical marketplace in the High Middle Ages. So too, we explore the origins of anatomical dissection outside the university setting.

Lecture: Medieval Practitioners Lecture: Medieval Dissectors

Live Talk: Wed Nov. 11

Monserrat Cabré, "Women or Healers? Household Practices and the Categories of Health Care in Late Medieval Iberia", *Bulletin of the History of Medicine* 82 (2008): 18-51.

Katharine Park, "The Life of the Corpse: Division and Dissection in Late Medieval Europe," *Journal of the History of Medicine* 50 (1995): 111-32.

John of Mirfield, *Surgery. A Translation of his Breviarium Bartholomei, pt. IX*, by James Colton, (New York, Hafner Pub. Co., 1969): 201-17; 755-59.

Anne Van Arsdall, *Medieval Herbal Remedies: The Old English Herbarium and Anglo Saxon Medicine*, (New York: Routledge, 2002): 222-230.

Please watch the brief You Tube Video "Ancient Biotics" at: https://www.youtube.com/watch?v=mo4K51bQVs0

A description of the project is at http://www.nottingham.ac.uk/news/pressreleases/2015/march/ancientbiotics---a-medieval-remedy-for-modern-day-superbugs.aspx

Siraisi, Medieval and Early Renaissance Medicine, 115-152.

Response: Look at the website <a href="http://www.thegreathospital.co.uk/">http://www.thegreathospital.co.uk/</a> Write a one page response — what surprised you about this medieval hospital? What kinds of factors would lead you to want to enter such a hospital? How might you understand the relationship between this institution and the modern hospital?

#### **Learning Objectives:**

- Analyze the mix of religious and practical precepts that characterized much medieval healing.
- Interpret medieval therapeutics
- Describe the wide array of medieval healers.
- Critically review the early history of anatomical dissection.
- Connect the religious and medical histories of the hospital.

Week 4, Nov. 14: Medieval Medicine: Leprosy and The Black Death

Some of the first institutions for health care were the medieval leper hospitals. People in the Middle Ages feared leprosy like no other disease — until the advent of the Black Death the middle of the 14th century, one of the first epidemics that seemed global in scale to many who experienced it. This week we explore both ailments, asking a range of questions about experiences of disease in the past. If you have not already seen the Toolbox lecture "Retrospective Diagnosis", please watch it this week.

Lecture: Leprosy

Lecture: Life as a Leper

Lecture: The Coming of the Black Death Lecture: Experiencing the Epidemic

# Voice Thread:

Michael Dols, *The Black Death in the Middle East*, (Princeton: Princeton University Press, 1977): 121-130.

Faye M. Getz, 'Death and the Silver Lining: Meaning, Continuity, and Revolutionary Change in Histories of Medieval Plague', *Journal of the History of Biology*, 24 (1991): 265-89.

John Aberth, ed., *The Black Death. The Great Mortality of 1348-1350*, (Boston, New York: Bedford/St. Martin's Press, 2005): 34-36; 47-50; 55-63.

Rosemary Horrox, ed. and trans., *The Black Death* (Manchester: Manchester University Press, 1994): 158-163; 184-193.

Response: Choose 2 of the authors of primary sources about the Black Death. What kinds of people are these two? How might their particular situations/experiences shape their accounts? When you have submitted your response, I will pair you with another student, and ask you to comment upon each other's response paper. Please be supportive, and offer one positive comment ("I liked the way you…") and one constructive criticism ("I think the paper could be stronger if…"). Please cc the instructors on your comments.

Please go to the Survey and answer a couple of quick questions on Midterm Reflections.

# **Learning Objectives:**

- Analyze how social developments shaped the spread of the plaque.
- Interpret how different cultures respond to the plague.
- Integrate several primary accounts of the same event.
- Compare and contrast medieval responses to leprosy and the plague.

# Week 5, Nov. 21: Renaissance and Reformation

This week we begin to explore the series of changes that made early modern medicine, looking at the impact of humanism, the new practices of anatomical dissection, and the advent of chemical medicines. If you have not taken Survey 1, you may wish to view the lecture "Galen in Rome".

Lecture: Humanism and Medicine: Texts and Botany

Lecture: Vesalius and De Fabrica

Please note: this week includes the Thanksgiving holiday, so we'll keep the Voice Thread open until through Sunday 29 Nov.

#### Voice Thread:

Katharine Park, The Secrets of Women, (New York: Zone Books, 2006): 207-259.

Felix Platter, Beloved Son Felix: The Journal of Felix Platter, a Medical Student in Montpellier in the Sixteenth Century, trans. Sean Jennet (London: Frederick Muller, 1961), pp. 70-101.

Andreas Vesalius, Preface, *On the Fabric of the Human Body*, see translation at: http://vesalius.northwestern.edu/books/FA.a.html.

Siraisi, Medieval and Early Renaissance Medicine, 187-193.

Response: Go to the NLM website "Historical Anatomies on the Web": http://www.nlm.nih.gov/exhibition/historicalanatomies/home.html Choose an anatomical image from a pre-Vesalian author on the NLM website, either:

Johannes Ketham, *Fasiculo de medicina*, Venice: Zuane & Gregorio di Gregorii, 1494.

#### OR

Jacopo Berengario da Carpi, *Isagogae breues, perlucidae ac uberrimae in anatomiam humani corporis,* Bologna: Benedictus Hector, 1523.

AND an image from Vesalius, *De Fabrica*, also on NLM website: http://www.nlm.nih.gov/exhibition/historicalanatomies/vesalius\_home.html.

- 1. Post your images to the class wiki, with a brief caption for each that helps explain why you chose the images.
- 2. I will have put you into working groups in advance. With your group, select 2-6 images from those posted on the wiki, and build a mini-exhibit, writing 1 paragraph collectively about the theme of your exhibit, and brief captions for

each image. I've made one myself as an example. Your exhibit is your response paper for this week; the final version is due **Sunday night**.

# **Learning Objectives:**

- Analyze how Vesalian anatomy was a product of both continuity and change.
- Develop interpretive skills for reading Renaissance image.
- Describe the impacts of humanism on medicine.

## Week 6, Nov. 28: New Worlds, New Drugs

Last week we looked at new kinds of medical knowledge produced by humanism. This week we turn to therapeutics. Paracelsus devised the first theory of the body that seriously contested humoral theory, and with his challenge came dramatic new therapeutics. Voyages of exploration were also crucial to the re-making of medicine in the early modern period; we examine a series of cross-cultural exchanges that brought new drugs, practices, and diseases to various parts of the world.

Lecture: Paracelsus

Lecture: Voyages of Exploration and the Columbian Exchanges

Lecture: New Practices, New Drugs

## Voice Thread:

Pamela Smith, *The Body of the Artisan*, (Chicago: University of Chicago Press, 2004): 82-93.

Harold J. Cook, *Matters of Exchange: Commerce, Medicine, and Society in the Dutch Golden Age*, (New Haven: Yale University Press, 2007): 191-209; 349-361.

Daniela Bleichmar, "Books, Bodies, and Fields: Sixteenth-Century Transatlantic Encounters with New World *Materia Medica*", in *Colonial Botany. Science, Commerce, and Politics in the Early Modern World*, ed. Londa Schiebinger and Claudia Swan, (Philadelphia: University of Pennsylvania Press, 2005): 83-99.

Garcia da Orta, *Colloquies on the Simples & Drugs of India*, (London, H. Sotheran and co., 1913 [ch. 36-37, 42]: 302-320; 335-41.

Hermann Busschof, *Two treatises the one medical, Of the gout and its nature more narrowly search'd into than hitherto...,* (London: Printed by H. C. and are to be sold by Moses Pitts ..., 1676): 129-132.

Lindemann, Medicine and Society, 11-83.

Response: Summarize Bleichmar's argument about Monardes. What does she highlight

about him? Why does it matter?

## **Learning Objectives:**

- Describe how the voyages of discovery brought new therapeutics to Europe
- Explain the concept "Columbian Exchange".
- Analyze how European practitioners in new colonial spaces drew upon sources of authority and translated local practices.
- Compare and contrast how Paracelsus and Vesalius re-shaped medicine.

# Week 7, Dec. 5: Early Modern Patients & Practitioners

With the advent of rising rates of literacy, for the first time we can ask what the patient/ practitioner relationship looked like from the patient's perspective. This week we examine the evolution of that relationship in the early modern period, focusing on changes in the medical marketplace and patients' perspectives.

Lecture: The Medical Marketplace: Healers

Lecture: Inventing the History of the Patient [also shown in IHOM]

Lecture: Patients' Perspectives

Live Talk, Thurs. Dec. 10

Deborah E. Harkness, "A View from the Streets: Women and Medical Work in Elizabethan London", *Bulletin of the History of Medicine* 82 (2008): 52-85.

Richelle Munkhoff, "Searchers of the Dead: Authority, Marginality, and the Interpretation of Plague in England, 1574-1665", *Gender & History 11* (1999): 1-29.

Thomas Willis, *Willis's Oxford Casebook (1650-52)* ed. Kenneth Dewhurst. (Oxford: Sandford Publications, 1981), 124-137.

Seventeenth-century London advertisements for practitioners:

Edmund Gray, "A Doctor in Physick", [London: s.n., 1675] Wing G1622C.

Margaret Searl, "Margaret Searl, wife to the late Samuel Searl" [London?: s.n. 1706], printed April 10. 1706.

Mrs. Mary Green, "Mrs. Mary Green, living at a haberdasher", [London: s.n., 1693] Wing G1811.

John Case; "The Sick may have Advice for nothing", [London: s.n., 1680?] Wing S3748C.

Lindemann, Medicine and Society, 193-280.

<u>Response:</u> Write a 1 page advertisement for an early modern medical practitioner, and post it to the class wiki. Take it seriously and be historically accurate -- no penicillin

please! What do you think such practitioners offered their patients? What were their strong points?

# **Learning Objectives:**

- Explain the concept of the "medical marketplace"
- Evaluate the roles of women healers in the medical marketplace.
- Describe the primary ways early modern patients understood illness

## **Week 8: Making New Knowledge**

In the seventeenth century, the model of the humoral body, a legacy of classical antiquity, was challenged by new views of the body as machine. This week we explore how new models of the body were made, and how they functioned in therapeutic encounters.

Lecture: William Harvey and De Motu

Lecture: New Institutions

Lecture: Making Mechanical Bodies

#### Voice Thread:

Gianna Pomata, "Sharing Cases: The *Observationes* in Early Modern Medicine", *Early Science and Medicine* 15 (2010), 193-244.

Steven Shapin, "Trusting George Cheyne: Scientific Expertise, Common Sense, and Moral Authority in Early Eighteenth-century Dietetic Medicine", *Bulletin of the History of Medicine* 77 (2003): 263-297.

Harold Cook, "The History of Medicine and the Scientific Revolution," *Isis*, 102 (2011): 102-108.

Giambattista Morgagni, *The Clinical Consultations of Giambattista Morgagn*i, ed. Saul Jarcho, (Boston: Countway Library, 1984): 13-18; 37-42; 47-58.

George Cheyne, *The English Malady*, (1733) reprint edition, edited by Roy Porter, (London: Tavistock/Routledge, 1991): 1-5; 307-311.

Lindemann, *Medicine and Society*, 84-156.

<u>Response:</u> no formal response paper, but please go to the Survey and complete the Course Reflection.

# **Learning Objectives:**

- Explain how Harvey came to discover the circulation of the blood, and how his model different from Galenic physiology.
- Describe new mechanical models of the body form Descartes through Cheyne

 Evaluate the role of ew scientific societies in the production of new medical knowledge.

# **Paper**

Choose ONE of the following excerpts. Drawing on the skills and knowledge you have developed in this course, write an 5-6 page essay. Each source consists of a series of cases. You can either write a about a theme that you see exemplified across a number of the cases, or focus on a close reading of a case or a couple of cases. I've given you fairly long excerpts so that you have a range of cases to choose from; I don't expect you to address the entire excerpt. Questions to get you thinking: What kind of text is this? What does it tell us about health and healing in early modern Europe? What is the author trying to persuade you of, by means of cases? You are very welcome to consult with me beforehand about choosing your theme.

Ambroise Paré, *The Case Reports and Autopsy Records of Ambroise Paré*, ed. and transl, Wallace B. Hamby, (Springfield, Illinois: Charles C. Thomas, 1960): 123-37.

Antonio Benivieni, *De abditis nonnullis ac mirandis morborum causis (On the Hidden and Marvelous Causes of Disease and Healing)*, trans. Charles Singer (Springfield IL: Charles C. Thomas, 1954): 25-73, notes on 213-14.